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Dielectric spectroscopy of amino alcohols at low temperatures

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Abstract

© 2016 Pleiades Publishing, Ltd.The dielectric properties of three vicinal amino alcohols are studied at temperatures in the range of -140-70°C and the frequency interval of 0.1 Hz to 1 MHz. The temperature dependences of the observed relaxation processes indicate both glass transition and melting processes. The relatively high conductivity of the samples was considered from the viewpoint of proton conductivity through a network of hydrogen bonds of amino alcohol molecules.

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Keywords

activation energy, amino alcohols, conductivity, dielectric spectroscopy, glass transition, relaxation processes, spatial network of hydrogen bonds